

Appln No. 09/640,479

Amdt date February 6, 2004

Reply to Office action of November 10, 2003

REMARKS/ARGUMENTS

Claims 1-2 and 4-17 are pending in the application. Claims 1 and 12 are amended to correct a typographical error.

Claims 1 and 12 are objected to because of informalities. In view of the amendments to claims 1 and 12, it is requested that the above objections be withdrawn.

Claims 1-2, 4-6, 8-15, and 17 are rejected under 35 U.S.C § 103 (a) as being obvious over Mera et al. 4,122,376 in view of Tatsuda et al. 4,972,116. Applicant submits that all of the pending claims are patentable over the cited references, and reconsideration and allowance of these remaining claims are respectfully requested.

Independent claim 1 includes, among other limitations, "an electron control means for generating a repulsive electric field when a negative potential is applied thereto to allow acceleration of electrons emitted from the electron emissive means in the direction of the display means," independent claim 10 includes, among other limitations, "applying a negative potential to the electron control means to repel and accelerate the emitted electrons toward the display means;" and independent claim 12 includes, among other limitations, "an electron controller including a plurality of grids, to allow repulsion and acceleration of electrons toward the display when a negative potential is applied thereto."

Mera does not teach, nor does it suggest the above limitations. Mera discloses a multi-indicia fluorescent display (FDT). The FDT of Mera includes a diffusion electrode 28 electrically connected to an electrification-preventing layer

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24. See column 5, lines 10-12, and FIGs. 1-4. This diffusion electrode is operated by a positive applied potential to "diffuse the electron current flowing from the cathode 22 to each segment anode 18 thereby to form an electric field which can level the density of electrons." Column 5, lines, 14-20.

Emphasis added.

Moreover, the cited text in Mera explains "[t]he electrification-preventing layers 24 and the shield layer 26 are provided with a positive bias potential with respect to the cathode potential" (Col. 5, lines 46-48). In this way, "the display tube is operated by giving a positive potential to the diffusion electrode 28 and shield-electrode layers 27 (24 and 26) with respect to the cathode potential. Therefore, the electric field thus produced diffuses and levels the density of electric current flowing from the cathode 22 to each segment anode 18 thereby to make electrons collide with each segment anode substantially uniformly. For this reason, "the display tube according to the present invention of the diode type can produce, without using any control electrode between the cathode and anode, a uniform luminescent display with no uneven brightness." (Col. 5, line 65 to col. 6, line 8, emphasis added).

Additionally, the claimed invention solves a different problem than the FDT of Mera. In the present invention, a "negative potential" is applied to electron control means generating a repulsive electric field to allow "acceleration" of electrons emitted from the electron emissive means toward the display means. However, in Mera, a positive potential is

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applied to the diffusion electrode 28 and shield-electrode layers 27 to generate a uniform luminescent display with no uneven brightness.

Indeed, by applying a negative potential to the electron control means to accelerate the electrons (i.e., a repulsive force towards the display), the present invention teaches away from the diffusion electrode of Mera to which a positive potential is applied to diffuse the electron current following from the cathode to each segment anode.

Similarly, Tatsuda does not teach or suggest the above limitations required by independent claims 1, 10, and 12.

Consequently, none of the cited references, alone or in combination disclose or suggest the claimed invention. In short, independent claims 1, 10, and 12 define a novel and unobvious invention over the cited references. Independent claims 2, 4-9, 11, and 13-17 are dependent from claims 1, 10, and 12, respectively and therefore include all the limitations of their respective independent claims and additional limitations therein. Accordingly, these claims are also allowable over the cited references, as being dependent from allowable independent claims and for the additional limitations they include therein.

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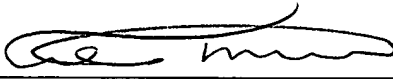
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In view of the foregoing amendments and remarks, it is respectfully submitted that this application is now in condition for allowance, and accordingly, reconsideration and allowance are respectfully requested.

Respectfully submitted,

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